

3M Science. Applied to Life.™

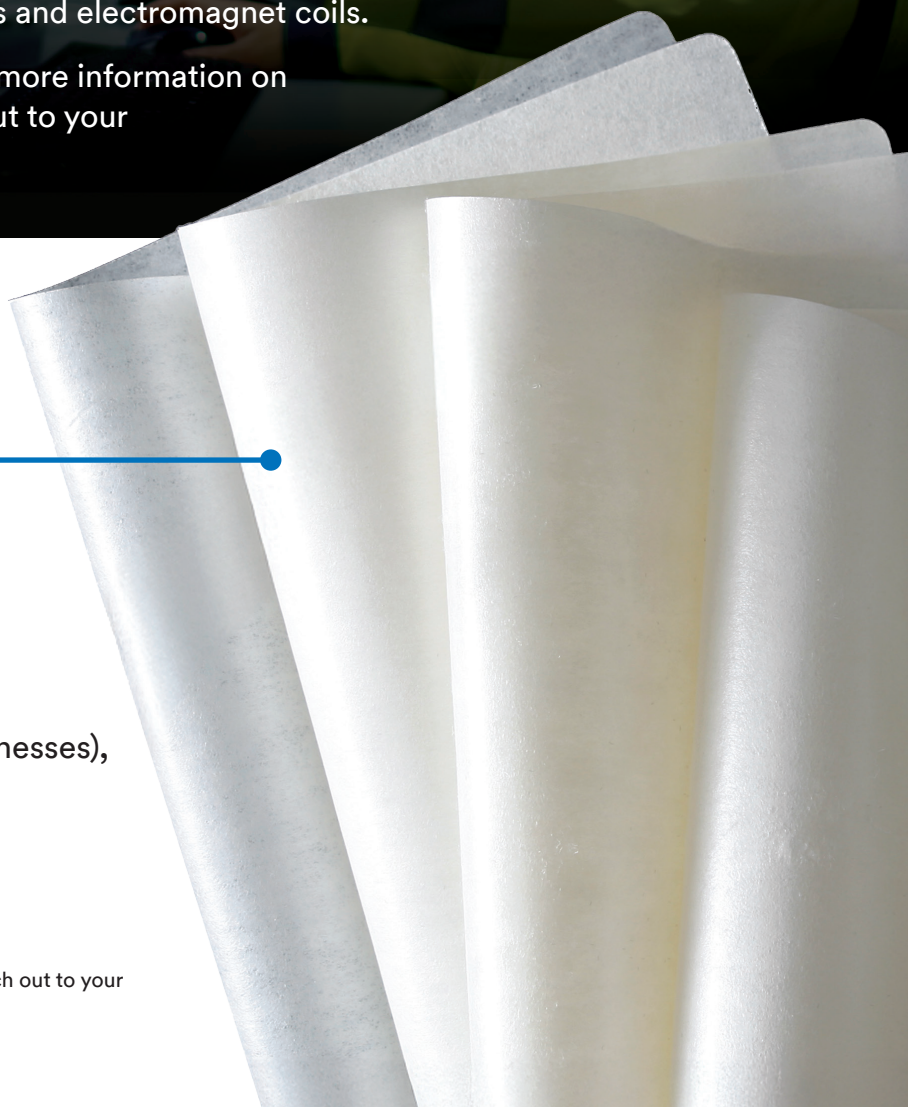
Reliable insulation for more reliable transformers.

3M™ Thermal Shield Insulating Paper

Take charge of your electrical design challenges with 3M™ Flexible Insulation Solutions.

3M™ Thermal Shield Insulating Paper is a calendered, non-woven insulating paper for high-temperature electrical insulation applications, including ground and layer insulation in dry-type transformers and electromagnet coils.

Available in paper or laminate versions. For more information on laminated versions over 36", please reach out to your 3M sales representative.



Why choose 3M™ Thermal Shield Insulating Paper?

- Longer fibers that increase the tear and mechanical toughness
- Excellent varnish absorption
- Low moisture absorption
- Widths: up to 74" (2 mils and 3 mils thicknesses), up to 59" (4 mils and 5 mils thicknesses)*
- Thicknesses: 2.5 mils (0.064 mm) to 5 mils (0.12 mm)

*For more information on laminated versions over 36", please reach out to your 3M sales representative.



Applications

- Dry-type transformers, coils, and reactors
  - Ground or interwinding insulation
  - Layer or turn insulation
- Electromagnetic coils

3M™ Thermal Shield Insulating Paper is qualified for use as major ground insulation in electrical insulation systems rated through Class 220(R) per UL 1446 and IEC Std. 61857. 3M UL Recognized Insulation Systems (File No. 65007) may be found on UL's Electrical Insulation Systems database.



Available options and typical product properties

Nominal Thickness mil (mm)	**Basis Weight** g/m² (lb/yd²)	**Tensile Strength, MD** N/cm (lb/inch)	**Tensile Strength, CD** N/cm (lb/inch)	**Elongation, MD** %	**Elongation, CD** %	**Dielectric Strength** V
2.5 (0.064)	45 (0.08)	16 (9)	5 (3)	18	7	350
3 (0.08)	66 (0.12)	21 (12)	9 (5)	14	5	450
4 (0.10)	90 (0.17)	28 (16)	12 (7)	12	5	500
5 (0.13)	116 (0.21)	42 (24)	19 (11)	15	6	600
ASTM Test Method						
D-374	D-202	D-828	D-828	D-828	D-828	D-149

Data is not for specifications. Values are typical and should not be considered minimum or maximum. Properties measured at room temperature 73°F (-23°C) unless otherwise stated.

Trust 3M.

As you face growing challenges to design more efficient transformers at lower cost, trust 3M as your supplier of insulation and tapes. Our team will work with you to help find solutions that meet your performance needs with the reliability, longevity, efficiency, and availability you require. Talk to your 3M representative today about how 3M™ Flexible Insulation Solutions can help you take charge of your transformer designs.



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Electrical Markets Division
13011 McCallen Pass, Bldg. C
Austin, TX 78753-5380

Phone 800.676.8381
Fax 800.828.9329
www.3M.com/oem

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